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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,483	02/05/2004	Robert S. Cooper	114.0006	4979

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DURHAM, NC 27713-7736

EXAMINER
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KOVACEK, DAVID M

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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12/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/772,483

Applicant(s)

COOPER ET AL.

Examiner

David Kovacek

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding **claim 1**, the additional amended limitation of, "...the help application being able to use information identifying the user's experience level to favor the performance of alternative actions to presentation of unabbreviated prompts for functions in which the user has a higher experience level" (referred to as "Limitation A") is ambiguous regarding the scope of the claim when considered in light of the existing limitation of, "...the help application being operative to identify an experience level of a user and select a help prompt appropriate to the user's experience level" (referred to as "Limitation B"). Specifically, the term "alternative actions" claimed in Limitation A are not clearly and concisely defined in the claim language.

The examiner contends that one particular "alternative action" to presenting an "unabbreviated prompt for [a function]" would be the presentation of an abbreviated prompt intended for experienced users of the system, which is included in the claim language of Limitation A. Therefore, the examiner contends that it is unclear why the two limitations are separate and distinct.

***Response to Amendment***

3. The amendments to the Drawings and Specification, received 10/09/2007, have been considered and accepted. The previous objects to the Drawings and Specification respectively are withdrawn.

4. Applicant's arguments with respect to **claims 1-16** have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection are explained fully in the appropriate sections of this Office Action.

Regarding **claim 1**, the added limitation, "...the help application being able to use information identifying the user's experience level to favor the performance of alternative actions to presentation of unabbreviated prompts for functions in which the user has a higher experience level" (referred to as "Limitation A"), does not further narrow the scope of **claim 1** beyond what is claimed in the previously included limitation,

"...the help application being operative to identify an experience level of a user and select a help prompt appropriate to the user's experience level" (referred to as "Limitation B").

The examiner contends that the broadest reasonable interpretation of Limitation A includes the condition of "...select a help prompt appropriate to the user's experience level" from Limitation B, in the case where the "alternative action" is the selection and presentation of a prompt appropriate for an experienced user that only differs from a prompt appropriate for an inexperienced user in the usage of acronyms and other language that an experienced user is expected to be familiar with. In this interpretation, Limitation B is narrower in scope than Limitation A. This interpretation has been considered for the purposes of examination.

It is noted by the examiner that the additional amended limitation to **claim 1**, including the capability of a help application for, "...noting erroneous and unrecognized user inputs..." further narrows the scope of **claim 1**.

Regarding **claim 10**, the amended limitation is very similar to the amended limitation of **claim 1** as applied above, but the limitation is directed to the "selection of an appropriate help prompt." It is noted by the examiner that this limitation is directed to the already claimed subject matter of selecting a help prompt based upon user experience level, and accordingly does not further narrow the scope of **claim 10**, as applied above to the similar amended limitation of **claim 1**.

It is further noted by the examiner that **claim 10** does not include the limitation of, "...noting erroneous and unrecognized user inputs..." and therefore said amendment does not further limit the scope of **claim 10** for the reasons discussed above regarding **claim 1**.

Accordingly, because **claim 10** contains no limitations of amendments which make it patentable over the previous rejection, this rejection is maintained.

Furthermore, because **claims 11-13** are further dependent upon **claim 10** and similarly contain no limitations of amendments that make them patentable over the previous rejections, those rejections are similarly maintained.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claims 1-9 and 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen, cited in a previous Office Action, in view of Ehlen, cited in a previous Office Action.

Regarding **claim 1**, Cohen discloses a voice recognition system comprising:

- a plurality of modules for receiving voice inputs and performing services based on user response (Fig. 1, item 2; Fig. 2; Col. 4, lines 8-10; Col. 4, lines 13-15; Col. 4, lines 31-33);
- a help application for selecting a help prompt for presentation to a user upon receipt of erroneous input (Fig. 4; Fig. 5; Col. 3, lines 26-31; Col. 3, lines 60-67; Col. 6, lines 49-58); and
- said help application being operative to identify an experience level of user (Col. 5, lines 48-55) and select a help prompt appropriate to the user's experience level (Col. 3, lines 28-31).

It is noted by the examiner that a common use of a "thrown event" is in the instance of erroneous input causing an exception within the input application.

The examiner contends that it inherent to include the limitation of, "the help application being able to use information identifying the user's experience level to favor the performance of alternative actions to presentation of unabbreviated prompts for functions in which the user has a higher experience level," (referred to as "Limitation A") in the previous limitation of, "the help application being operative to identify an experience level of a user and select a help prompt appropriate to the user's experience level" (referred to as "Limitation B").

As applied above in the "Response to Amendment" section of this Office Action, Limitation B includes Limitation A in the condition that the "alternative action" performed is a selection of a prompt appropriate for an experienced user that only differs from a prompt appropriate for an inexperienced user in the usage of acronyms and other language that an experienced user is expected to be familiar with. For this reason, the examiner further contends that Cohen additionally implies said Limitation A in disclosing Limitation B.

However, Cohen does not adequately disclose the limitation that the help application is capable of "noting erroneous and unrecognized user inputs."

Ehlen discloses a multi-modal dialog apparatus capable of detecting an erroneous or unrecognized user speech input (Page 3, paragraph 0032).

The two references are combinable because both applications relate to an apparatus and method for providing automatic help to a user of a speech-recognition system.

Ehlen provides motivation to combine in disclosing the need for an efficient and effective method of providing automated help to a user that is unfamiliar with a dialogue system (Page 1, paragraph 0012).

Therefore the examiner contends that it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Cohen using the teachings of Ehlen in order to implement a speech dialogue system that provides an efficient and



effective method of providing automated help to a user that is unfamiliar with its operations.

Regarding **claim 2**, Cohen in view of Ehlen discloses all limitations of **claim 1** as above, and Cohen additionally discloses modules being employed upon receipt of an unrecognized or erroneous input is identified to the help application and the help prompt selected is chosen based on information stored regarding the user (Col. 5, lines 63-66; Col. 6, lines 3-5; Col. 6, lines 10-12; Col. 6, lines 33-35).

Regarding **claim 3**, Cohen in view of Ehlen discloses all limitations of **claim 2** as above, and Cohen additionally discloses that said stored user information includes information indicating the user's proficiency in using the system (Col. 5, lines 48-54; Col. 6, lines 39-45; Col. 8, lines 12-15).

It is noted by the examiner that any stored user information that allows a distinction between "novice" and "expert" as is taught in Cohen inherently requires that said information includes some data regarding the proficiency of said user.

It is additionally noted by the examiner that "dialog state", as determined in Cohen, is understood to be an exchange of data between the user and an active module. This will be the definition of "dialog state" applied throughout the remainder of this document.

Regarding **claim 4**, Cohen in view of Ehlen discloses all limitations of **claim 3** as applied above, and Cohen additionally teaches that said stored information indicating a user's proficiency includes information indicating the user's proficiency with each function available to the user (Col. 8, lines 12-15).

It is noted by the examiner that Cohen's disclosure of a "usage history that tracks the dialog states of the user" (Col. 8, lines 12-13) would be understood by one of ordinary skill in the art to include data regarding all functions used. Therefore if it is possible to extrapolate a user's proficiency with the overall system using stored data regarding usage of system as applied in **claim 2**, it is inherent that using more detailed information would make it possible to extrapolate a user's proficiency with each function, as applied here to **claim 4**.

Regarding **claim 5**, Cohen in view of Ehlen discloses all limitations of **claim 4** as applied above, and Cohen additionally discloses a function usage tally of successful uses for each function (Abstract; Col. 3, lines 45-47; Col. 6, lines 39-44; Col. 8, lines 12-15).

It is noted by the examiner that, similarly to the application of Cohen in view of Ehlen for **claim 4** above, that one of ordinary skill in the art would understand that a "usage history" would inherently contain data regarding successes and/or failures of dialog states for each function.

Regarding **claim 6**, Cohen in view of Ehlen discloses all limitations of **claim 5** as applied above, and Cohen additionally discloses the use of said function usage tally in order to determine the user experience category for each user with respect to a function (Col. 5, lines 48-54; Col. 5, lines 63-66; Col. 6, lines 3-5; Col. 6, lines 10-12; Col. 6, lines 33-35).

It is noted by the examiner that the selection of a help prompt based upon the distinction of “novice” or “expert” user experience for a function is explicitly stated in Cohen to depend upon the number of times the user has used said function previously (Col. 5, lines 48-54).

Regarding **claim 7**, Cohen in view of Ehlen discloses all limitations of **claim 6** as applied above, and Cohen additionally discloses the help application determines the user experience category by selecting an experience category associated with the user's function usage tally for a function (Col. 5, lines 48-54).

Regarding **claim 8**, Cohen in view of Ehlen discloses all limitations of **claim 7** as applied above, and Ehlen further teaches a speech recognition system with a help application that tracks consecutive input errors and selects appropriate help prompt in the case of consecutive input errors (Page 3, paragraph 0032).

This limitation, as disclosed by Ehlen, is integral to the teachings of Ehlen related to a method of efficient and effective method of providing automated help to a user unfamiliar with a dialogue system.

Therefore, the examiner contends that it would have been obvious to modify the teachings of Cohen using the teachings of Ehlen for the reasons applied above regarding **claim 1**.

Regarding **claim 9**, Cohen in view of Ehlen discloses all limitations of **claim 8** as applied above, and Ehlen further discloses that the user's function usage tally for a given function is updated upon each successful use of that function (Page 3, paragraphs 0034-0035). This is additionally further suggested by Cohen (Col. 8, lines 12-15).

This limitation, as disclosed by Ehlen, is integral to the teachings of Ehlen related to a method of efficient and effective method of providing automated help to a user unfamiliar with a dialogue system.

Therefore, the examiner contends that it would have been obvious to modify the teachings of Cohen using the teachings of Ehlen for the reasons applied above regarding **claim 1**.

Regarding **claim 14**, Cohen discloses all limitations of **claim 13** as applied in a previous Office Action, and Ehlen additionally discloses the detection of consecutive input errors (Page 3, paragraph 0032) and selecting a help prompt based

upon a number of consecutive input errors and the user's level of experience (Page 3, paragraph 0033).

This limitation, as disclosed by Ehlen, is integral to the teachings of Ehlen related to a method of efficient and effective method of providing automated help to a user unfamiliar with a dialogue system.

Therefore, the examiner contends that it would have been obvious to modify the teachings of Cohen using the teachings of Ehlen for the reasons applied above regarding **claim 1**.

Regarding **claim 15**, Cohen in view of Ehlen discloses all limitations of **claim 14** as applied above, and Ehlen additionally teaches the selection of a prompt being increasingly dependent upon consecutive input errors as the number of consecutive input errors increases (Page 3, paragraphs 0031-0033).

It is noted by the examiner that one of ordinary skill in the art would understand an increasing number of consecutive input errors by the user to be the same as the "user [demonstrating] that he requires assistance" as disclosed by Ehlen.

This limitation, as disclosed by Ehlen, is integral to the teachings of Ehlen related to a method of efficient and effective method of providing automated help to a user unfamiliar with a dialogue system.

Therefore, the examiner contends that it would have been obvious to modify the teachings of Cohen using the teachings of Ehlen for the reasons applied above regarding **claim 1**.

Regarding **claim 16**, Cohen in view of Ehlen discloses all limitations of **claim 15** as applied above, and a step of updating the user's function usage tally is taught both by Ehlen (Page 3, paragraphs 0034-0035) and additionally implied by Cohen (Col. 8, lines 12-15).

It is noted by the examiner that Ehlen's disclosure includes reference to a "common information state" and Cohen's disclosure includes reference to a "dialog state history." Both of these terms as disclosed would be interpreted by one of ordinary skill in the art to include data regarding the number of successful uses of a given function by a user.

### ***Double Patenting***

7. The Terminal Disclaimer filed for the conflicting copending application No. 10/772,829 has been considered and accepted. Therefore, the provisional double patenting rejection cited in the previous Office Action is withdrawn.

***Conclusion***

8. Please note that though the examiner providing signatory authority for this action has changed, the examination has been performed by the same examiner throughout prosecution.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

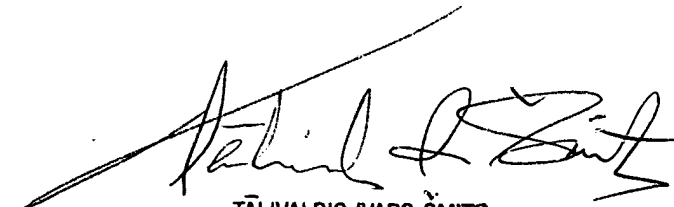
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Kovacek whose telephone number is (571) 270-3135. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DMK 11/29/2007



TĀLIVALDIS IVARS ŠMITS  
PRIMARY EXAMINER